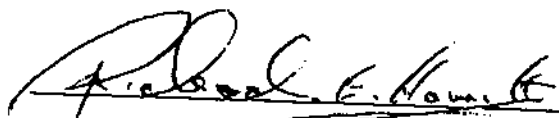


DECLARATION OF RICHARD E. HOWITT, Ph.D.

I, RICHARD E. HOWITT, Ph.D., declare and state as follows:

1. I am a consultant in the field of agricultural and resource economics with over twenty seven years experience in the economics of water allocation and use. A current curriculum vitae detailing my qualifications and experience is attached to this declaration.
2. I have been retained by the Metropolitan Water District of Southern California (Metropolitan) to assist it in evaluating the amount of Colorado River water needed to satisfy reasonable and beneficial uses within the Imperial Irrigation District (IID).
3. My opinions, findings and conclusions concerning this matter are discussed in detail in the attached May 28, 2003 memorandum to Principal Engineer Kirk Dimmitt, Subject: An Analysis of the Declaration of Dr. Rodney Smith.
4. The opinions, findings and conclusions detailed in the attached memorandum are based upon my own personal and professional knowledge of and expertise in the matters that are addressed and, if called as a witness, I could and would testify competently thereto.

I declare that the foregoing is true and correct and that this declaration was executed in Yolo County, California on May 28, 2003.



RICHARD E. HOWITT, Ph.D.

Consultant to Metropolitan in the field of
agricultural economics

RICHARD E. HOWITT

Title: Professor

February 17 2003

M.S., University of California, Davis, 1971

Ph.D., University of California, Davis, 1975

Academic Position

Professor of Agricultural & Resource Economics, University of California, Davis, 1986- present
and Economist in the Experiment Station and Giannini Foundation, University of California, Davis

Current Applied Research Interests

(i) Capitalization Project

Co-investigator: Jay Lund C E Dept U C Davis

Funding source: California Resources Agency

Objective: To use a comprehensive economic engineering model of the complete California water system to analyze the willingness to pay for additional structures and institutions for California water, and the ability to finance them.

(ii) WaterLink Electronic Market

Co-investigators: David Sunding & David Zilberman ARE Dept, Berkeley

Funding source: U.S Bureau of Reclamation

Objective: To design and implement an electronic water market that would allow cheap and rapid trades between users and districts. WaterLink has been implemented for one year in Westlands WD, and is now extended to 12 districts in the San Luis- Delta Mendota region.

(iii) Experimental "Smart" Markets for Water.

Co-investigators: Vernon Smith & Steve Rassenti, Economic Science Lab, U Arizona

Funding source: National Science Foundation.

Objective: To test the design and implementation of "smart" markets for water trading using experimental economic methods and financially motivated subjects.

(iv) Impact on Groundwater of Water Markets

Co-investigators: Keith Knapp (U C Riverside) Marca Wienberg (U C D)

Funding source: U C Salinity project

Objective: Groundwater aquifers will be an increasingly important source of storage and supply. However the trend towards market solutions for water will place additional demands on groundwater. The study models an aquifer in the San Joaquin valley under different water market conditions.

(v) Optimal Non-point Source Sediment Control

Funding Source: U.C. Center for Water & Wildlands

Objective: Nonpoint source pollution is characterized by the inability to readily measure the source. This research uses information theory to optimally allocate expenditures between identifying the highly polluting sites and cleaning them up. The project is applied to stream sediment in the Redwood national Forest.

Field(s) of Interest

Resource Economics, Environmental Economics, Quantitative Methods, and Econometrics

Professional Activities

Member: American Agricultural Economics Association
Western Agricultural Economics Association
European Agricultural Economics Association
Association of Environmental and Resource Economics

Awards: The American Agricultural Economics Association Award for Quality of Research Discovery in a Journal publication, 1976
Chair for AAEA Outstanding PhD Dissertation Award, 1976 and 1990
Chair for AAEA Outstanding MSc Dissertation Award, 2001

Publications

Howitt, R. E., S. F. Moore, C. V. Moore, and J. H. Snyder. February 1974. "A Simulation Approach to Recreation Planning (A Case of Changing Quality)." Reprint from Annals of Regional Science, Vol. 8, No. 1, February 1974, pp. 35-50. Giannini Foundation Research Paper No. 357.

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